

## Similar Triangle Activity #1: Shadow Play

### Instructions

1. Work in a group of two or three. Submit a neat and organized assignment.
2. Locate a high object where you can measure the length of its shadow.
3. Measure the height and shadow length of each group member.
4. Sketch and label all of the triangles for your measurements.
5. Calculate the height of the object using the height and shadow length for each group member.
6. Take the average of the heights as your final answer for the height of your object.

### Follow up questions (use complete sentences/paragraph form)

1. Write the corresponding side ratios for the triangles of the group members. Are the triangles similar?
2. Discuss some reasons that the height calculation could be different from person to person.
3. Suggest one or two ways this activity could be improved upon to obtain more accurate results.
4. Could this technique be used to find the height of any object? Discuss some limitations to this method.
5. What two other objects in the city would you like to calculate the height of?

